

## Patent Abstracts of Japan

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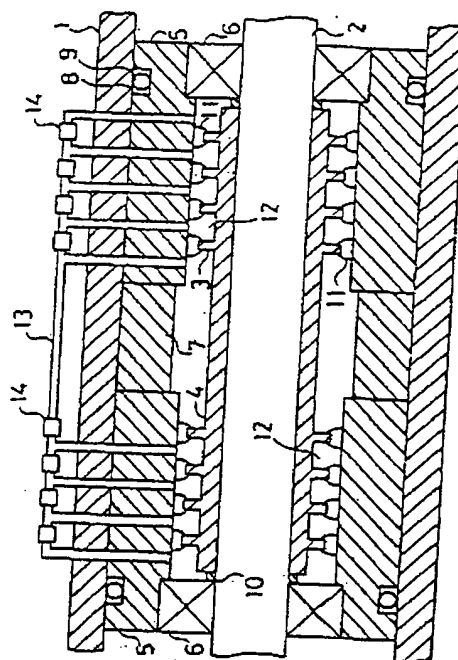
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TITLE : MAGNETIC-FLUID SEAL DEVICE



ABSTRACT : PURPOSE: To improve the seal performance by communicating seal chambers formed with a film made of magnetic fluid to adjacent individual seal chambers with a pipeline via pressure adjusting valves in a magnetic-fluid seal device.

CONSTITUTION: An annular lug 3 is formed on the surface of a rotary shaft 2, and when a magnetic fluid is injected, the magnetic fluid is stuck between the inner periphery of a pole piece 5 and the outer periphery of the annular lug 3 to form a ring-like film 11, and a seal chamber 12 is formed. Adjacent seal chambers 12 are communicated to each other with a pipeline 13, and pressure adjusting valves 14 are provided respectively in the middle of the pipeline 13. Accordingly, the gradually pressurized gas on the high-pressure side flows into individual seal chambers through the pipeline without passing the film, the seal performance is not deteriorated, and the desired seal performance can be obtained.

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